

IN THE CLAIMS:

Please amend claims 34, 45, 46, 52, 54 and 58 as follows.

Claims 1-33 (Cancelled)

34. (Currently Amended) A method, comprising:

a) ~~transmitting-receiving~~ from a base transceiver station of a mobile communication network ~~by at least one mobile station onto~~ a plurality of mobile stations of the mobile communication network a parameter defining allowed access slots of a physically existing random access channel;

b) ~~receiving said parameter at a mobile station and~~ determining, at said mobile station, said allowed access slots of the physically existing random access channel based on said parameter; and

c) using, at said mobile station, at least one of said determined allowed access slots of the physically existing random access channel for initiating a random access operation to said base transceiver station.

35. (Previously Presented) The method according to claim 34, comprising transmitting said parameter via a broadcast channel.

36. (Previously Presented) The method according to claim 35, wherein said broadcast channel is the Broadcast Channel of a Wideband Code Division Multiple Access system.

37. (Previously Presented) The method according to claim 35, comprising initiating said random access operation via the Physical Random Access Channel uplink channel and the Acquisition Indication Channel downlink channel of the Wideband Code Division Multiple Access system.

38. (Previously Presented) The method according to claim 34, wherein said parameter defines a subset of available access slots of said mobile communication network.

39. (Previously Presented) The method according to claim 38, comprising determining said subset by another parameter transmitted from said base transceiver station to said mobile station.

40. (Previously Presented) The method according to claim 39, wherein said other parameter is a timing parameter defining a transmission timing of an uplink access slot.

41. (Previously Presented) The method according to claim 39, comprising transmitting said other parameter via a broadcast channel.

42. (Previously Presented) The method according to claim 39, comprising changing the bit number of said parameter in dependence on said other parameter.

43. (Previously Presented) The method according to claim 42, comprising disabling a transmission of a preamble signature or an acquisition indication in dependence of the value of said parameter.

44. (Previously Presented) The method according to claim 42, comprising calculating an index of an allowed uplink access slot on the basis of the value of said parameter and a frame number of a frame used for transmitting an uplink access slot.

45. (Currently Amended) A method, comprising:

a) ~~receiving~~transmitting from a base transceiver station of a mobile communication network ~~to~~by at least one mobile station of a plurality of mobile stations of the mobile communication network a parameter defining allowed access slots of a physically existing random access channel;

b) ~~receiving said parameter at a mobile station and~~ determining, at said mobile station, said allowed access slots of the physically existing random access channel based on said parameter; and

c) using, at said mobile station, at least one of said determined allowed access slots of the physically existing random access channel for performing a random access operation to said base transceiver station,

wherein said parameter defines a subset of available access slots of said mobile communication network,

wherein said subset is determined by another parameter transmitted from said base transceiver station to said mobile station,

wherein the bit number of said parameter is changed in dependence on said other parameter,

wherein an index of an allowed uplink access slot is calculated on the basis of the value of said parameter and a frame number of a frame used for transmitting an uplink access slot,

wherein said index is calculated by using the equation

$$i = 3 \cdot N + (F \text{ modulo } 3)$$

where $0 \leq N \leq 2$,

wherein F and N are integer numbers, and F denotes said frame number, and wherein only access slots having indices within the range 0 to 7 are valid.

46. (Currently Amended) A method, comprising:

a) ~~transmitting-receiving~~ from a base transceiver station of a mobile communication network ~~to-by at least one mobile station of~~ a plurality of mobile stations of the mobile communication network a parameter defining allowed access slots of a physically existing random access channel;

b) ~~receiving said parameter at a mobile station and~~ determining, at said mobile station, said allowed access slots of the physically existing random access channel based on said parameter; and

c) using, at said mobile station, at least one of said determined allowed access slots of the physically existing random access channel for performing a random access operation to said base transceiver station

wherein said parameter defines a subset of available access slots of said mobile communication network,

wherein said subset is determined by another parameter transmitted from said base transceiver station to said mobile station,

wherein the bit number of said parameter is changed in dependence on said other parameter,

wherein an index of an allowed uplink access slot is calculated on the basis of the value of said parameter and a frame number of a frame used for transmitting an uplink access slot,

wherein said index is calculated by using the equation

$$i = 4 \cdot N + (\Gamma \text{ modulo } 4)$$

$$\text{where } 0 \leq N \leq 3,$$

wherein Γ and N are integer numbers, and Γ denotes a frame number indicating two consecutive frame numbers of said frame used for transmitting an uplink access slot, and wherein only access slots having indices within the range 0 to 14 are valid.

47. (Previously Presented) The method according to claim 45, wherein said parameter determines an offset to be added to said calculated index.

48. (Previously Presented) The method according to 34, comprising determining an index of an allowed uplink access slot on the basis of the value of said parameter irrespective of a frame number of a frame used for transmitting an uplink access slot.

49. (Previously Presented) The method according to claim 34, comprising determining an allowed downlink slot by adding a predetermined value to an index of a received uplink slot.

50. (Previously Presented) The method according to claim 49, comprising selecting said predetermined value in accordance with a timing parameter defining a transmission timing of said uplink slot.

51. (Previously Presented) The method according to claim 34, wherein bit values of a binary expression of said parameter determines a combination of calculated indices obtained for other values of said parameter, said other values corresponding to the binary weights of said binary expression.

52. (Currently Amended) A system ~~for performing random access in a mobile communication network~~, comprising:

a) a base transceiver station arranged for transmitting a parameter defining allowed access slots of a physically existing random access channel; and

b) a plurality of mobile stations arranged for receiving said parameter, for determining said allowed access slots of the physically existing random access channel based on said parameter, and for using at least one of said determined allowed access slots of the physically existing random access channel for initiating a random access operation to said base transceiver station.

53. (Previously Presented) The system according to claim 52, wherein said network element is a Wideband Code Division Multiple Access base transceiver station and said mobile station is a Wideband Code Division Multiple Access mobile station.

54. (Currently Amended) A network element for a mobile communication network comprising a plurality of mobile stations, comprising:

a) setting means for setting a parameter defining allowed access slots of a physically existing random access channel, via which allowed access slots of the physically existing random access channel a random access operation to the network element to be initiated; and

b) transmitting means for transmitting said parameter to said plurality of mobile stations.

55. (Previously Presented) The network element according to claim 54, wherein said network element is a Wideband Code Division Multiple Access base transceiver station.

56. (Previously Presented) The network element according to claim 54, wherein said transmitting means is arranged to transmit said parameter via a broadcast channel.

57. (Previously Presented) The network element according to claim 54, wherein said setting means is arranged to set said parameter in dependence on a timing parameter value defining a transmission timing of an uplink access slot in said random access operation.

58. (Currently Amended) A mobile station for a mobile communication network ~~having at least one network element allowing a random access operation~~, comprising:

a) a receiving unit configured to receive from said network element a parameter defining allowed access slots of a physically existing random access channel for said random access operation;

b) a determining unit configured to determine said allowed access slots of the physically existing random access channel based on said parameter received from said network element; and

c) a transmitting unit configured to initiate transmission of a random access message to said network element using at least one of said determined allowed access slots of the physically existing random access channel.

59. (Previously Presented) The mobile station according to claim 58, wherein said receiving unit is arranged to receive said parameter via a broadcast channel.

60. (Previously Presented) The mobile station according to claim 59, wherein said determining unit is arranged to determine said allowed access slots of the physically existing random access channel on the basis of said received parameter and a timing parameter received via said broadcast channel.

61. (Previously Presented) The mobile station according to claim 58, wherein said determining unit is arranged to calculate an index of an allowed uplink access slot on the basis of the value of said received parameter and a frame number of a frame used for transmitting an uplink access slot.

62. (Previously Presented) The mobile station according to claim 58, wherein said determining unit is arranged to determine an index of an allowed uplink access slot on the basis of the value of said parameter irrespective of a frame number of a frame used for transmitting an uplink access slot.

63. (Previously Presented) The mobile station according to claim 58, wherein a selection unit is provided for randomly selecting from allowed access slots of the

physically existing random access channel determined by said determining unit an uplink access slot to be used for transmitting a preamble of said random access message.

64. (Previously Presented) The mobile station according to claim 63, wherein consecutive preambles are transmitted a predetermined number of access slots apart.

65. (Previously Presented) The mobile station according to claim 64, wherein said predetermined number depends on a timing parameter received by said receiving unit.

66. (Previously Presented) The mobile station according to claim 64, wherein said selection unit is arranged to perform said random selection any time a preamble needs to be transmitted.

67. (Previously Presented) A method, comprising:

a) receiving a parameter defining allowed access slots of a physically existing random access channel for a random access operation in a mobile communication network;

b) determining said allowed access slots of the physically existing random access channel based on said parameter; and

c) initiating transmission of a random access message using at least one of said determined allowed access slots of the physically existing random access channel.

68. (Previously Presented) A method, comprising:

a) receiving information about a set of available uplink access slots of a random access channel in a mobile communication network;

b) deriving available uplink access slots, in a next full access slot set, for the set of available uplink access slots; and

c) randomly selecting one access slot among the available uplink access slots for initiating a random access procedure.

69. (Previously Presented) A method, comprising:

a) receiving a set of available Random Access Channel sub-channels in a mobile communication network, a Random Access Channel sub-channel defining a sub-set of a total set of uplink access slots;

b) deriving available uplink access slots, in a next full access slot set, for the set of available Random Access Channel sub-channels; and

c) randomly selecting one access slot among the available uplink access slots for initiating a random access procedure.

70. (Previously Presented) A method, comprising:

a) receiving an access parameter message sent on a broadcast channel in a mobile communication network, the access parameter message defining allowed transmission

slots in which random access channel transmissions are limited to occur, wherein the allowed transmission slots are dictated by slot offset and slot duration parameters;

b) calculating an allowed transmission slot based on the slot offset and slot duration parameters; and

c) initiating transmission of a random access message using the allowed transmission slot.

71. (Previously Presented) An apparatus, comprising:

a) receiving means for receiving from a network element a parameter defining allowed access slots of a physically existing random access channel for a random access operation;

b) determining means for determining said allowed access slots of the physically existing random access channel based on said parameter received from said network element; and

c) transmitting means for initiating transmission of a random access message to said network element using at least one of said determined allowed access slots of the physically existing random access channel.